UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,802	09/28/2001	Arthur Sheiman	024/46	3100

8791 7590 11/02/2005

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
12400 WILSHIRE BOULEVARD
SEVENTH FLOOR
LOS ANGELES, CA 90025-1030

EXAMINER	
MALZAHN, DAVID H	
ART UNIT	**PAPER NUMBER**
2193	

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

UNITED STATES PATENT AND TRADEMARK OFFICE

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313-1450
www.uspto.gov

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 09/966,802
Filing Date: September 28, 2001
Appellant(s): SHEIMAN ET AL.

BLAKELY SOKOLOFF TAYLOR & ZAFMAN
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 15 August 2005 appealing from the Office action mailed 14 March 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,140,541	SAKATA et al	8-1992

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1, 7, 13 and 19-22 stand rejected under 35 U.S.C. 102(b) as being anticipated by Sakata et al (Sakata).

Sakata discloses both an apparatus and a method for time varying filtering, i.e. the filtering function is varied as a function of time by changing the values of the filtering coefficients, by disengaging and engaging filters by changing the values of the filter coefficients from an initial set (defining a first filter) to a final set (defining a second filter) via a graduated or intermediate sequence of steps wherein successive sets of filter coefficients are determined via interpolation to smoothly move from the first filter to the second filter, note the abstract.

Figs. 1 and 18 of Sakata illustrate two embodiments of time varying filtering wherein a desired operating point, i.e. cutoff frequency, fc, defines a particular filter by defining the values of a set of filter coefficients, e.g. Fig. 2 illustrates the Digital Filter, 108, of Fig. 1 as an IIR filter which receives a plurality of samples at the INPUT and with the coefficients b1, b2 and K being a function of fc. The coefficients b1 and b2 are retrieved from memory as a function of fc, note Fig. 4, and K is computed from b1 and b2, note Fig. 2. The interpolation process of moving from a first fc (i.e. first filter) to a second fc (i.e. second filter) is illustrated in Fig. 7.

Claim 1 may be read on Sakata in the following manner:

Claim 1	Sakata
"time varying filtering"	the dynamic control of the filter results in time varying filtering, note the abstract
"filtering a segment of	Fig. 2 shows a filter wherein the INPUT is a succession of samples

a signal using a filter"	wherein one or more samples may be considered a segment of a signal
"disengaging the filter in a sequence of graduated steps at the end of the segment"	when Fc is changed from fc1 to fc2 the filter defined by fc1 is is disengaged in a sequence of graduated steps, via interpolation, and the disengagement is complete when the set of coefficients defined by fc2 have become effective which defines the end of the segment
"repeating steps a and b", i.e. the filtering and the disengaging	the filter defined by fc2 does the filtering until a new cutoff frequency fc3 is defined which results in disengaging the filter defined by fc2

Relative to claim 7 the "engaging a filter in a sequence of graduated steps at athe beginning of a signal segment" corresponds to Sakata's changing the cutoff frequency from fc1 to fc2 which results in the engaging of the filter defined by fc2 at a sample in the INPUT signal which defined the beginning of the segment.

Claims 13 and 19-21 may be read on Sakata in a manner similar to claims 1 and 7 as detailed above.

Relative to claim 22 the "migrating the coefficients" clearly corresponds to changing from one set of coefficients to another set of coefficients and relative to "inaudibly switching" Sakata uses coefficient interpolating to "smoothly move" the operating point of the filter, note the second to last line of the abstract. In column 1, lines 33-40, Sakata states that if the coefficients change instantly "then noise occurs, giving rise to a serious problem in the sound generating application", clearly indicating that "inaudible switching " is desired.

(10) Response to Argument

Contrary to appellants' argument as set forth in paragraph A, the abstract of Sakata does provide a prima facie case of anticipation. Nevertheless Figs. numbers and columns with lines numbers have been identified to add to the "factual basis".

Relative to appellants' argument dealing with a single, physical filter, Sakata's filter functions as a first filter when the operating point is fc1 and as a second filter when the operating point is fc2.

Relative to appellants' argument relative to disengaging and engaging a filter, Sakata disengage the filter defined by fc1 and engages the filter defined by fc2 when the operating point of the filter changes from fc1 to fc2.

Relative to appellants' argument dealing with "disengaging a filter at the end of a segment" and "engaging a filter at the beginning of a segment", Sakata's INPUT, Fig. 2, receives a sequence of samples of a signal with the above "end of a segment" corresponding to a point in the sequence of samples of the signal when the filter defined by fc1 is disengaged and with the above "beginning of a segment" corresponding to a point in the sequence of samples of the signal when the filter defined by fc2 is engaged.

Relative to appellants' argument relative in "inaudibly switching" note that Sakata calls for "interpolating to smoothly move the operating point of the digital filter", second to last line of the abstract and that lines 33-40 of column 1 call for the switching to avoid noise because the noise results in "giving rise to a serious problem in the sound generating application" which implies "inaudibly switching".

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejection should be sustained.

Respectfully submitted,

D. H. Malzahn

Conferees:

Kakali Chaki

KAKALI CHAKI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100

Tuan Dam

TUAN DAM
SUPERVISORY PATENT EXAMINER